APPENDIX D

NONPOINT SOURCE TABLES

The tables presented in this appendix are tabularized information repeated from each individual WMA in a program-oriented format. The intent is to provide the information for quick reference outside the narrative style of the WMA sections.

A summary of NPS problems in general is presented below. A summary of water quality assessment in terms of geographical areas and NPS categories can be found in Tables 1 and 1A.

- Projected changes in land use in the North Coast Region include an increase in land devoted to vineyards and a decrease in land devoted to orchards and grazing. The Region now has two full-time staff persons working directly on hillside vineyard issues.
- Timber harvest reviews in the Region will be with greater awareness of NPS environmental concerns such as erosion control and maintenance of riparian habitat. In order to meet this challenge, the staff of the Timber Harvest Division has tripled and is actively reviewing and inspecting all Timber Harvest Plans near streams.
- The population in the Region continues to grow, especially in the southern part of the Region in the Santa Rosa Plain. This will necessitate an enhanced vigilance by the Regional Board staff over waste discharge and storm water runoff. The Region plans, as a pilot project in the Russian River WMA, to create a monitoring consortium of all dischargers, agencies and local monitoring efforts to keep track of water quality.
- The largest single pollutant on an areal basis is excess sediment much of it from rural roads. Increased water temperatures from insults to the riparian corridor follow as a close second, and nutrient enrichment, while severe in some areas, is third in areal extent.

Many waterbodies in the region are high quality waters with respect to water chemistry and conventional pollutants (when sedimentation and temperature problems are removed from the analysis). The Smith River is a jewel among north coast rivers and deserves special recognition and protection as outstanding quality. Other rivers of high quality that require protection include the Mad, Trinity, Eel, Russian, and a number of smaller coastal rivers.

The Klamath and Shasta Rivers, the Laguna de Santa Rosa, Stemple Creek, and Americano Creek are nutrient enriched partially from nonpoint sources to varying degrees. As resources permit, we are addressing those problems through outreach and special assessments to document extent of problems and sources.

Long-term goals to address NPS problems include the critical tool of assessment of the waterbodies to determine extent of problems and quantify sources. Using the assessment information in an outreach program, we strive to bring awareness to landowners about their part in reducing NPS pollution. This fostering of stewardship for the aquatic resource is complimented by an active grant program aimed at demonstration of practices to reduce NPS impacts and actual restoration of our waterbodies.

Specific short-term (1–5 years) objectives for each Watershed Management Area come from the individual WMA sections in this report and are repeated in Table 2. These tables for Big, Albion and Ten Mile Rivers have not been developed yet.

Nonpoint source pollution is the leading cause of water quality impairment in California. California's Nonpoint Source (NPS) Pollution Control Program has been in effect since 1988. In January 2000 the lead State agencies for the NPS Program, the SWRCB and CCC in coordination with the RWQCBs released the "Plan for California's Nonpoint Source Pollution Control Program" (NPS

Program Plan). The NPS Program Plan enhances the State's efforts to protect water quality, and to conform to the Clean Water Act Section 319 (CWA 319) and Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). The State's long-term goal is to "improve water quality by implementing the management measures identified in the California Management Measures for Polluted Runoff Report (CAMMPR) by 2013." A key element of the Program is the "Three-Tiered Approach," through which self-determined implementation is favored, but more stringent regulatory authorities are utilized when necessary to achieve implementation with its NPS problems consistent with the NPS Program Plan and its resource needs.

The State's three-tiered approach for progressive compliance and attainment of receiving water beneficial use protection from Nonpoint Source (NPS) pollution involves:

1. Self-directed Implementation of Best Management Practices (Tier 1)
   Tier 1 is the first and most informal level of Regional Board and/or Regional Board staff involvement. At the Tier 1 level, the discharger is expected to voluntarily identify and implement Best Management Practices (BMPs) that are intended to eliminate and/or prevent NPS pollution without threat of regulatory action. Encouragement and voluntary compliance incentives are promoted through informal staff inspections, education, training, technical assistance, funding, and demonstration projects.

2. Regulatory-based Encouragement of Best Management Practices (Tier 2)
   At the Tier 2 level, the Regional Board, and Regional Board staff essentially withhold direct regulatory action (like issuance of Waste Discharge Requirements [WDRs]) provided the discharger implements appropriate BMPs that are necessary to prevent NPS pollution. A formalization of this approach can be a waiver of WDRs or entering into a management agency agreement, wherein the Regional Board and discharger or responsible agency agree on actions.

3. Effluent Limitations (Tier 3)
   The Tier 3 level is a direct regulatory approach that may include issuance of NPDES Stormwater Permits, Regional Board adoption of Total Maximum Daily Load and Attainment Strategy Plans (Basin Plan revision), WDRs, or enforcement orders containing specific effluent limitations necessary to protect the beneficial uses of the receiving waters. Tier 3 places the discharger under formal regulation with routine inspections, discharger self-monitoring and reporting programs, and enforcement mechanisms in the event of non-compliance.

The North Coast Region has an established NPS policy in its Water Quality Control Plan (Basin Plan) in Section 4: Implementation Plans. In general, the policy is to promote the implementation of best management practices and remedial projects in a three tiered approach: 1) self-determined implementation, 2) regulatory-based encouragement, and 3) effluent limitations. At the present time two action plans are contained in the NPS policy: 1) Action Plan for Logging, Construction and Associated Actions, and 2) Action Plan for Control of Discharges of Herbicide Wastes from Silvicultural Applications.

The North Coast Region has used the three tiered approach for many years and has been successful in promoting compliance through self-determined actions by dischargers. Our watershed partnership approach with animal facility operations (AFOs), including the dairy industry in the Russian/Bodega WMA is an exemplary demonstration of how the North Coast Region has implemented the three tier approach:

Tier 1

For the last two decades Regional Board staff (in cooperation with educational and technical assistance agencies) has nurtured a working relationship of trust with AFOs to educate and promote

the development and implementation of BMPs necessary for water quality improvement and protection. Included in that outreach, technical assistance, and education effort is the grant program, where we directly oversee USEPA grants, promote and assist in obtaining other federal grant assistance (e.g., EQUIP, CRP), and promote local agency involvement in funding opportunities (City of Santa Rosa loan program). Regional Board staff also participates in a voluntary water quality monitoring program where ranchers, as a part of their ranch plan, monitor stormwater runoff with field test kits. The monitoring information, which is recorded and retained in each rancher's ranch plan, is utilized to assess the success of implemented BMPs. Acceptable monitoring results provide positive feed back to the rancher that the BMPs implemented are effective. Unacceptable monitoring results provide the rancher with the knowledge that additional or modified BMPs need to be developed and implemented.

The first significant step for a discharger is to select the means to comply. Self-directed compliance is intended to allow landowners who are not familiar with theirs lands and operations to develop a farm or ranch plan that identifies site-specific Best Management Practices (BMPs) with an implementation schedule. The self-directed monitoring elements of the implemented ranch plan also provide the discharger with a means of continued compliance assessment.

Tier 2

The Sonoma/Marin Farm Bureau's Animal Resource Management Committee is composed of ranchers, industry representatives, private consultants, and educational, technical assistance and regulatory agencies. The Committee oversees the broad issue of management practices for water quality protection. It is a self-policing organization that addresses and responds to water quality issues, pulling in agency assistance as needed. Should Regional Board staff or the Department Fish and Game observe or become aware of an undesirable practice, the matter is referred to the Committee for correction. Permitting the Committee the opportunity to seek compliance in a non-confrontational manner has been highly effective.

Encouragement can also include progressive Regional Board and Regional Board staff enforcement, from informal staff contact to formal Regional Board enforcement actions that can include development of time schedules for compliance and monetary penalties.

Tier 3

If the regulatory agencies observe a blatant disregard for water quality protection, they can choose to go directly to enforcement without first going through the Committee. The desired route, however, is to for industry to have the opportunity to seek correction first. On occasion, if the Committee is not successful in bringing about compliance in a timely manner, formal regulatory agency enforcement action is supported by the Committee. When Regional Board staff do become involved, a phased regulatory approach is implemented, beginning with an initial site visit often accompanied by a representative of the Committee. If staff level enforcement is not effective, the matter is elevated to more formal enforcement, such as a Cleanup and Abatement Order.

Another example of our three-tier approach is with county road erosion problems, where we first contact the county regarding a problem and work out an approach to resolution at the staff level. If timely actions are not forthcoming, we elevate the issue to more formal enforcement.

In the spirit of Tier 1, outreach and education is the main means of reaching the public and assisting them with compliance. Table 2A outlines these activities in the North Coast Region.

Table 3 is a list of Waivers of Waste Discharge by category. SB 390 requires that all of these waivers are renewed by 2003, or they will expire. Table 4 is a list of key partners with the North Coast Region who share responsibility for specific water quality issues.

In addition, the staff at the Regional Board participate on several statewide efforts such as the California Bio-diversity Council Workgroup, the Watershed Protection Council, the Anadromous Fisheries Council, the 401 Certification Group, the Urban Runoff Task Force, and the Storm Water Task Force. We also are involved in Section 7 consultations with the Army Corps of Engineers and local efforts to address NPS problems in the Humboldt Bay area, the Upper Klamath River, the Russian River, and coastal tributaries.

Table 5 outlines the North Coast Region's priority NPS implementation activities for FY 2002-03 and resources that will be used to affect those priorities. Table 6 outlines needed NPS implementation activities for FY 2004-05.

TABLE 1: North Coast Regional NPS Problems by Management Measure Category

	Pollutant(s) impairing or threatening Beneficial Uses Arranged by Management Measure Category					
Watershed/waterbody	**Agriculture**	**Silviculture**	**Urban**	**Marinas & Recreational Boating**	**Hydromodification**	**Wetlands & Vegetated Treatment Systems**
Russian/Bodega WMA						
Estero Americano (692 ac)	Sediment/silt Nutrients				Sediment/silt	
Americano Creek (7 mi)	Nutrients					
Russian River (105mi)	Sediment/silt	Sediment/silt	Sediment/silt		Sediment/silt	Sediment/silt
Tomki Creek (18mi)	Sediment/silt	Sediment/silt				
Stemple Creek	Sediment/silt Nutrients					
Klamath WMA						
Klamath River (190mi)	Nutrients Organics/D.O.	Temperature Sediment/silt	Organics/D.O.		Temperature Sediment/silt	
Scott River (68mi)	Sediment/silt Temperature	Sediment/silt Temperature			Sediment/silt Temperature	Sediment/silt Temperature
Shasta River (52mi)	Organics/D.O. Temperature				Organics/D.O.	Temperature
NORTH COAST RIVERS WMA						
Navarro River Delta (20 ac)	Sediment/silt	Sediment/silt				
Albion River (14mi)		Sediment/silt				
Big River (40 mi)		Sediment/silt				
Garcia River (35mi)	Temperature Sediment/silt	Temperature Sediment/silt			Temperature Sediment/silt	
Gualala River (35mi)	Sediment/silt	Sediment/silt				
Mattole River (56mi)	Sediment/silt	Sediment/silt Temperature			Sediment/silt	

Navarro River (25mi)	Sediment/silt Temperature	Sediment/silt Temperature	Sediment/silt		Sediment/silt Temperature	Sediment/silt Temperature
Noyo River (35mi)		Sediment/silt				
Ten Mile River (10mi)		Sediment/silt				
Humboldt Bay WMA						
Elk River (87mi)		Sediment/silt			Sediment/silt	
Freshwater Creek (73mi)		Sediment/silt			Sediment/silt	
Mad River (90mi)	Sediment/silt Turbidity	Sediment/silt Turbidity			Sediment/silt Turbidity	
Redwood Creek (65mi)	Sediment/silt	Sediment/silt				
Eel River WMA						
Eel River Delta (6350 ac)	Sediment/silt Temperature	Sediment/silt Temperature				
Eel River Middle Fork (64mi)	Sediment/silt Temperature	Sediment/silt Temperature				
Eel River Main Middle fork (1075mi)	Sediment/silt Temperature	Sediment/silt Temperature				
Eel River North Fork (41mi)		Sediment/silt				
Eel River South Fork (85mi)	Sediment/silt Temperature	Sediment/silt Temperature			Sediment/silt Temperature	
Eel River Upper Main Fork (1154mi)	Sediment/silt Temperature	Sediment/silt Temperature				
Van Duzen River (65mi)	Sediment/silt	Sediment/silt				
Trinity River WMA						
Trinity River (170mi)	Sediment/silt	Sediment/silt			Sediment/silt	
Trinity River South Fork (80mi)	Sediment/silt Temperature	Sediment/silt Temperature			Temperature	

Table 1A: North Coast Groundwater Impairments

REGION	WATER BODY NAME	HYDRO UNIT	CAUSES*	SIZE**	SOURCES*	SIZE**	TOTAL SIZE**
1	ALEXANDER VALLEY AREA	114.25	Oil and grease	23	Lust/Leaking Undergrnd Stor. Tanks	23	23
			Priority organics	23			
1	ANDERSON VALLEY	1-190	Oil and grease	5	Lust/Leaking Undergrnd Stor. Tanks	5	5
			Priority organics	5	Petroleum Activities	5	
					Resource Extraction	5	
					Spills	5	
1	ANNAPOLIS OHLSON RANCH	1-490	Oil and grease	10	Lust/Leaking Undergrnd Stor. Tanks	10	10
1	BIG RIVER VALLEY	1-450	Oil and grease	5	Lust/Leaking Undergrnd Stor. Tanks	5	5
			Priority organics	5	Spills	5	
1	BODEGA BAY AREA	1-210	Oil and grease	5	Lust/Leaking Undergrnd Stor. Tanks	5	5
			Petroleum/Gasoline	5	Spills	5	
			Priority organics	5			
1	CLOVERDALE AREA	114.25	Oil and grease	9	Lust/Leaking Undergrnd Stor. Tanks	9	9
			Pesticides	9	Spills	9	
			Priority organics	9			
1	EEL RIVER VALLEY	1-100	Oil and grease	0	Lust/Leaking Undergrnd Stor. Tanks	120	120
			Priority organics	0	Spills	120	
1	EUREKA PLAIN	1-90	Oil and grease	60	Land Disposal	60	60
			Priority organics	60	Landfills	60	
					Lust/Leaking Undergrnd Stor. Tanks	60	
					Petroleum Activities	60	
					Resource Extraction	60	
					Spills	60	
1	FORT BRAGG TERRACE AREA	1-210	Oil and grease	24	Lust/Leaking Undergrnd Stor. Tanks	24	24
			Priority organics	24	Spills	24	
1	GARBERVILLE TOWN AREA	1-320	Oil and grease	0	Lust/Leaking Undergrnd Stor. Tanks	5	5
			Priority organics	0	Spills	5	
1	GUALALA RIVER VALLEY	1-470	Oil and grease	5	Lust/Leaking Undergrnd Stor. Tanks	5	5
			Priority organics	5			
1	HEALDSBURG AREA	114.25	Oil and grease	27	Lust/Leaking Undergrnd Stor. Tanks	27	27
			Priority organics	27	Spills	27	
1	LEGGETT AREA	1000000	Oil and grease	2	Lust/Leaking Undergrnd Stor. Tanks	2	2

* Causes and Sources are not linked.

** "Size" refers to the affected size (square miles) of the water body and "Total Size" refers to the size of the entire water body.

1

Table 1A: North Coast Groundwater Impairments (cont'd)

REGION	WATER BODY NAME	HYDRO UNIT	CAUSES*	SIZE**	SOURCES*	SIZE**	TOTAL SIZE**
			Priority organics	2			
1	LITTLE LAKE VALLEY	1-130	Oil and grease	17	Lust/Leaking Undergrnd Stor. Tanks	17	17
			Priority organics	17	Spills	17	
1	LOWER RUSSIAN RIVER VALLEY	114.10	Oil and grease	9	Lust/Leaking Undergrnd Stor. Tanks	9	9
			Priority organics	9	Spills	9	
1	MAD RIVER VALLEY	1-80	Oil and grease	60	Lust/Leaking Undergrnd Stor. Tanks	60	60
			Priority organics	60	Spills	60	
1	MODOC PLATEAU PVA	1-240	Oil and grease	3000	Lust/Leaking Undergrnd Stor. Tanks	3000	3000
			Priority organics	3000	Petroleum Activities	3000	
					Resource Extraction	3000	
					Spills	3000	
1	SANTA ROSA PLAINS	114.22	Metals	96	Agriculture	96	96
			Nutrients	96	Lust/Leaking Undergrnd Stor. Tanks	96	
			Oil and grease	96	Petroleum Activities	96	
			Priority organics	96	Resource Extraction	96	
					Spills	96	
1	SHASTA VALLEY	1-40	Oil and grease	340	Lust/Leaking Undergrnd Stor. Tanks	340	340
			Pesticides	0	Petroleum Activities	340	
			Priority organics	0	Resource Extraction	340	
					Spills	340	
1	SMITH RIVER PLAIN	1-10	Pesticides	70	Agriculture	70	70
			Petroleum/Gasoline	70	Lust/Leaking Undergrnd Stor. Tanks	70	
			Priority organics	70	Spills	70	
1	UKIAH VALLEY	114.31	Metals	16	Lust/Leaking Undergrnd Stor. Tanks	16	16
			Priority organics	16	Petroleum Activities	16	
					Resource Extraction	16	
					Spills	16	
1	WEAVERVILLE AREA	1000000	Petroleum/Gasoline	2	Lust/Leaking Undergrnd Stor. Tanks	2	2
			Priority organics	2	Spills	2	
1	WINDSOR AREA	1000000	Metals	2	Lust/Leaking Undergrnd Stor. Tanks	2	2
			Oil and grease	2	Spills	2	
			Priority organics	2			

* Causes and Sources are not linked.

** "Size" refers to the affected size (square miles) of the water body and "Total Size" refers to the size of the entire water body.

Table 2. Short Term Objectives: Russian/Bodega WMA

Objective	Goal Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Outreach and enforcement to reduce discharges from hillside vineyards and other agricultural sites	1, 3, 4, 5	X**	X	X	?**	?	1A, E, G	Partial
Work with the local dairy industry to improve management practices.	1, 3, 4, 5	X	X	X	X	X	1B,C	No
Support the RCDs' efforts to address erosion and mass wasting issues in the Stemple Creek watershed.	1, 3, 4	X	X	?	?	?	1A, E, G	Yes
Review timber harvest operations for control of sediment discharges.	1, 3, 4	X	X	X	X	X	2A-F, K	
Continue in the restoration of portions of Santa Rosa Creek with issuance of waste discharge requirements for the Prince Greenway project.	1, 3, 4	X	X				5.1, 5.3 6	
Monitor for MTBE in lakes Sonoma and Mendocino	1	X	X				N/A	
Monitor for toxic chemicals in water, sediment, and tissue (TSMP, SMW, xenobiotic estrogens)	1, 3, 4, 5	X	X	X	X	X	N/A	
Outreach and enforcement for rural residential roads.	1, 3, 4, 5		?	?	?	?	N/A	Partial
Maintain the Regional Water Board and counties' individual waste disposal systems program and promote reasonable resolution of localized problems.	1, 2, 5	X	X	X	X	X	3.4	
Promote the continuing development and application of best management practices for storage, treatment, and disposal of hazardous substances, storm water runoff, solid waste, dairy waste, municipal waste water, agricultural and industrial wastes.	1, 2, 3, 4, 5	X	X	X	X	X	1D, B 3.1, 3.2, 3.3	
Establish a monitoring network in high risk/high use ground water areas.	2		?	?	?	?	N/A	
Assess nonpoint source impacts of Sonoma County landfill on Stemple Creek.	1, 2, 3, 4		?	?			5.2	Yes
Promote habitat/riparian restoration in existing agricultural areas	1, 3, 4, 5	X	X	X	X	X	1A, E 5.1, 5.2, 5.4A	Yes
Evaluate the sediment data collected by the US Geological Survey for the Russian River with respect to erosion and sedimentation issues and the anadromous fishery	3, 4	?					N/A	

Evaluate and pursue methods for evaluating sediment sources (e.g., satellite imagery, aerial photography)	3, 4, 5	?	?	?			N/A	
Support the development of a Budget Change Proposal requesting monitoring funds and pursue innovative approaches to funding and volunteer monitoring	1-7, 9	X	X				N/A	
Promote awareness of the effects of increased erosion on channel morphology	3, 4	X	X	X	X	X	5.1-5.4 3.1A	
Determine sources and extent of sedimentation in Cheney Gulch and refer concern to responsible agency.	5, 9	?	?				1A, E 5.1, 5.2	
Improve agency coordination regarding Bodega Harbor runoff issues and marina and dry dock operations.	5	?	?				3.1-3.3, 3.6 4.1-4.3	
Review and inspect critical construction storm water permit holders.	1-7, 9	X	X	X	X	X	3.1-3.3, 3.5, 3.6	
Continue water quality monitoring in the Russian River, Laguna de Santa Rosa and Stemple Creek	1-4, 6, 7						1A-F,3.1, 3.2,3.5, 5.1, 5.3, 6A, 6B	
Implement pollutant controls using existing regulatory programs and authorities	1-7						numerous	
Outreach and education to implement control measures and expand monitoring	1-7						numerous	
Finalize new 401 certification application package								
Cooperate with the ACOE and CDFG on the Santa Rosa Plain wetlands policies								
Streamline permitting process								No

* GOALS from the WMI Chapter section for the Russian/Bodega WMA

- **GOAL 1: Protect surface water uses MUN, REC-1, REC-2**
- **GOAL 2: Protect and maintain ground water quality and quantity for the beneficial uses of domestic, municipal, agricultural, and industrial water supply uses**
- **GOAL 3: Protect/enhance coldwater fisheries**
- **GOAL 4: Protect/enhance warmwater fisheries**
- **GOAL 5: Protect aquatic life and public health in Bodega Harbor**
- **GOAL 6: Objectives attainment in the Laguna de Santa Rosa**
- **GOAL 7: Stemple Creek and Americano Creek Waste Reduction Strategies**
- **GOAL 8: Water Rights Coordination**
- **GOAL 9: Assessment of Salmon Creek and other tributaries**

Table 2 – Short Term Objectives: Klamath River WMA

Objective	Goal Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
LOST RIVER Subwatershed								
Continue existing level of baseline water quality monitoring and investigation of pesticide and toxics issues	2, 3	?**	?	?	?	?	1D, 2I	
Increase staff interactions with BOR and National Wildlife Refuges to document and understand influences of Klamath Straits Drain discharges on downstream Klamath water quality and to address the issues of water quantity, conveyance, and timing issues in a manner that better protects water quality	2, 3		X**	X			5.1A	
Increase staff interaction with ODEQ and TID on review of existing water quality objectives through the "TMDL" process and funding support for assessment of agricultural practices affecting water quality in Lost River and Tule Lake	3		X	X			1A, 1E, 1F	
Continue existing level of CWA Section 319(h) grant programs for stream restoration on Clear Lake tributaries	1, 2	?	?	?			1G, 5.4A	No
UPPER KLAMATH Subwatershed								
Significantly increase staff interaction with PacifiCorp, BOR, Klamath Compact Commission, USFWS, and CDFG working towards understanding water conveyance and flow scheduling as relates to water quality factors in the FERC and SWRCB water rights licensing processes	1, 2, 3, 4		X	X	X		2L	
Continue existing level of baseline monitoring, including Hydrolab stations in Oregon at JC Boyle and Keno with emphasis on documenting water quality as	1, 2, 3, 4	?	?	?	?	?	N/A	

it flows from above Klamath Straits Drain into Copco reservoir								
Increase staff interactions with ODEQ on review of common bi-state water quality objectives through the "TMDL" program, including CA concerns regarding Klamath water quality meeting recreation standards	1, 2, 3, 4		X	X			N/A	
Increase staff time spent interacting with USFWS for KRIS maintenance and use	1, 2, 3, 4	?	?	?	?	?	2L	
Increase staff interaction with residents of Copco Reservoir regarding summertime nuisance conditions	2, 4	?	?	?	?	?	2L	
Continue existing level of grant program for stream restoration work	1, 2, 3	?	?	?			5.4A	No
MIDDLE KLAMATH Subwatershed								
Increase level of CDF Review Team meetings and inspections	1, 4, 5	X	X	X	X	X	2A, 2B, 2E, 2K	
Increase level of review of USFS Timber Sales	1, 4, 5	X	X	X	X	X	2A, 2B, 2E, 2K	
Continue existing level of work with local community on sediment control in the upper Scott River watershed	1, 4, 5		?	?	?	?	1A, 1G, 1E, 2L	
Continue existing level of forest herbicide application monitoring	1, 4, 5	X	X	X	X	X	2I	
Continue existing grant program for stream restoration and nonpoint source control of agricultural, construction, and timberland in the Shasta, Scott, and Salmon rivers, concentrating on those issues which affect water temperature and habitat, such as riparian corridors, irrigation water discharges	1, 4, 5	?	?	?	?	?	1A, 1G, 1E, 2L, 5.4A	No
Increase staff interaction with USFWS and CDFG towards determining specific temperature needs for fish in the mainstem below Iron Gate dam and in the Shasta and Scott rivers using the FERC	1, 4, 5		X	X	X		2L	

process to ensure adequate flows for migration and temperature maintenance								
Review grazing permits and practices for water quality compliance	1, 4, 5	?	?	?	?	?	1E	Partial
Increase baseline water quality monitoring	1, 4, 5	?	?	?	?	?	N/A	
Continue existing level of staff interaction with local watershed groups towards developing TMDLs in designated sub-basins	1, 4, 5	X	X	X	X	X	2L	
LOWER KLAMATH Subwatershed								
Increase level of CDF Review Team meetings and inspections	1, 3, 4	X	X	X	X	X	2A, 2B, 2K	
Increase level of review of USFS Timber Sales	1, 3, 4	X	X	X	X	X	2A, 2B, 2K	
Increase staff interaction with private timber companies to develop long-term water quality monitoring programs	1, 3, 4	X	X				2L	
Continue existing level of forest herbicide application monitoring	1, 3, 4	X	X	X	X	X	2K	
Foster adaptive management based on water quality findings	1, 3, 4	X	X	X	X	X	N/A	
Develop and maintain additional monitoring stations downstream of Orleans	1, 3, 4	?	?	?	?	?	N/A	

*GOALs from the WMI Chapter section for the Klamath WMA

- **GOAL 1: Protect and enhance the salmonid fishery (Mainstem and tributaries below Iron Gate)**
- **GOAL 2: Protect and enhance warmwater and endangered aquatic species**
- **GOAL 3: Maintain the viability of agriculture and timber uses**
- **GOAL 4: Maintain recreational opportunities**
- **GOAL 5: Protect groundwater uses**

Table 2 – Short Term Objectives: Noyo River

Objective	Goal Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Monitoring to determine the effectiveness of management practices to reduce erosion and sedimentation and determine trends towards the TMDL desired future condition.	1,2						1E,2, 3.1, 3.2, 3.3, 5.1, 5.3, 6A	
Biological assessment in the surface waters near the Parlin Fork Conservation Camp	1							
Enhance public and agency participation to improve the recognition of land use impacts on the aquatic environment from nonpoint sources and to foster adaptive management for overall watershed health.	1,2						various	No
Improve coordination with local and State agencies s part of the TMDL implementation process.	1,2						1E,2, 3.1, 3.2, 3.3, 5.1, 5.3, 6A	
Additional investigation, sampling and monitoring, and enforcement actions at mill sites that historically used wood treatment chemicals	1						5.1, 6A	
Review and inspect timber harvest plans for implementation of best management practices to ensure protection of water quality and beneficial uses. Expand program activities on private land.	1,2						2	
Continue active involvement in grant programs	1,2						various	Yes

GOAL 1: Protect surface and ground water DOM, REC-1, and REC-2 uses
GOAL 2: Protect and enhance beneficial uses associated with anadromous fishes COLD

Table 2 – Short Term Objectives: Navarro River

Objective	Goal Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Monitoring to determine the effectiveness of management practices to reduce erosion and sedimentation and determine trends towards the TMDL desired future condition.	1,2						1E,2, 3.1, 3.2, 3.3, 5.1, 5.3, 6A	Yes
Enhance public and agency participation to improve the recognition of land use impacts on the aquatic environment from nonpoint sources and to foster adaptive management for overall watershed health.	1,2						various	Yes
Improve coordination with local and State agencies s part of the TMDL implementation process.	1,2						1E,2, 3.1, 3.2, 3.3, 5.1, 5.3, 6A	
Additional investigation, sampling and monitoring, and enforcement actions at mill sites that historically used wood treatment chemicals	1						5.1, 6A	
Continue active involvement in grant programs	1,2						various	Yes
Identify erosion and sediment sources and potential sources, including sources related to new development of hillside vineyards	1,2						1A	Partial
Conduct outreach on best management practices for hillside vineyards	1,2						1G	Partial
Review and inspect timber harvest plans for implementation of best management practices to ensure protection of water quality and beneficial uses. Expand program activities on private land.	1,2						2	

GOAL 1: Protect surface and ground water DOM, REC-1, and REC-2 uses
GOAL 2: Protect and enhance beneficial uses associated with anadromous fishes COLD

Table 2 – Short Term Objectives: Garcia River Watershed

Objective	Goal Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Participate in the THP review team and preharvest inspections	1,3	X**	X	X	X	X	2A	
Review and comment on SYPs and HCPs to ensure consistency with TMDL	1,3	X	X	X	X	X	2A	Yes
Provide outreach and education to local landowners	1,3	?	?	?	?	?	2I, 5.4A	Yes
Promote grants for restoration (319(h), CDFG)	1,3	X	X	X	X	X	5.4A	Yes
Review existing temperature data and collect more to fill data gaps	1,3	?	?	?			2B	
Review permit and plan compliance with the TMDL	1,3			X			N/A	Yes
Enforce on violations of the Basin Plan and/or TMDL	1,3	X	X	X	X	X	N/A	Yes
Stay involved in and promote the above considerations in the Section 404 permit process and CDFG 1603 process	1, 3	X	X	X	X	X	5.1B	
Review landowner and county road inventories	1, 3	?	?	?			2D	Yes
Promote outsloping and rolling dips for roads in the WMA	1, 3	X	X	X	X	X	2C	Yes
Request Rangeland Management Plans from ranchers	1,3	X	X	X			1E	Yes
Promote specific implementation plans in the TMDL to address identified sources	1,3	X	X	X	X	X	N/A	Yes
Implement upslope erosion controls	1,3	L**	L	L	L	L	1A, 2A	No
Manage and maintain properly functioning riparian zone (may include promoting late seral stage coniferous vegetation)	1,3	L	L	L	L	L	5.1B, 2B	No
Encourage bridges instead of culverts on fish-bearing streams	1,3	X	X	X	X	X	2A	
Work with the Mendocino County Health Department to educate users of agricultural and residential storage tanks on pollution prevention	2	?	?				N/A	
Monitor applications of the	1,3						5.1A, 5.1B	

Mendocino County Garcia River Gravel Management Plan		?	?	?				
Review effectiveness of current enhancement projects	1,3	X					2K	
Encourage maintenance of adequate stream flows	1,3	X	X	X	X	X	6B	
Consider effects of off-stream water supply pits and channel stability and discourage direct diversion for road watering/dust control	1,3		?	?	?	?	2A, 5.1A	

* GOALS from WMI Chapter for the Garcia River Watershed

- **GOAL 1: Protect and enhance salmonid resources (COLD, MIGR, SPWN, RARE)**
- **GOAL 2: Protect and enhance ground water resources and attendant high beneficial uses**
- **GOAL 3: Protect all other surface water uses**

L = Landowner responsibility under the TMDL

Table 2 – Short Term Objectives: Gualala River Watershed

Objective	GOAL Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Monitor to determine the effectiveness of management practices to reduce erosion and sedimentation	1	X**	X	?	?	?	1A, 2	Partial
Assess bacterial quality in two high use recreation areas	3	?	?				4.2A & C	
Education and outreach to improve the recognition of land use impacts on the aquatic environment from nonpoint sources	1,3	X	X				2L, 3.6A	Yes
Coordinate through the GRWC on a monthly basis, and with other entities as needed	1,2,3	X	X				1G, 2L, 3.6A, 5.4A	Yes
Investigate ground water petroleum contamination	2	X					N/A	
Continue involvement in grant programs for NPS and fisheries	1	X	X	X	X	X	5.4A	Yes
Continue involvement in forestry, grazing, and county road issues	1,3	X	X	X	X	X	2A,B,C,D,E,F ,H,K,L	Partial

* GOALS from the WMI Chapter for the Gualala River Watershed

- **GOAL 1: Protect and enhance salmonid resources (COLD, MIGR, SPWN, RARE)**
- **GOAL 2: Protect and enhance ground water resources and attendant high beneficial uses**
- **GOAL 3: Protect all other surface water uses**

Table 2 – Short Term Objectives: Humboldt Bay WMA

Objective	GOAL Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Review timber landowners' Sustained Yield Plans and Habitat Conservation Plans for protection of beneficial uses.	1	X**	X	X	X	X	2A	
Maintain an active timber harvest review program and promote enforcement actions on violations	1	X	X	X	X	X	2A	
Impose penalties on animal facilities with repeated non-compliance	1	?**	?	?	?	?	1B	Yes
Continue active participation in Vegetation Management Advisory Committee (CalTrans) and assist CalTrans in the development of a study of herbicide runoff from highway spraying operations	1	X	X	X	X	X	1D, 3.5D	
Promote watershed analysis of Humboldt Bay tributaries within the scope of the Pacific Lumber Company Habitat Conservation Plan	1, 4	X	X	X	X	X	2A	
Identify sources of existing ground water information.	2	?	?				N/A	
Participate in local outreach programs, such as the Humboldt Bay Symposium.	2	?	?				1G, 2L, 3.6A	
Provide information for accessing 319(h) and Proposition 13 grant funds for the agricultural, timber and urban/rural communities.	2, 4	X	X	X	X	X	1G, 2l, 3.6A	
Continue involvement with local efforts to coordinate monitoring	3	X	X	X	X	X	1G, 2L, 3.6A	Yes
Enhance the existing monitoring activities by volunteers	3	?	?	?	?	?		
Maintain involvement in the gravel bar mining, especially as relates to channel stability.	4	X	X	X	X	X	5.1 A & B	
Staff will continue to support and encourage the Humboldt Shellfish Technical Advisory Committee.	5	X	X	X	X	X	4.1A	
Continue investigations at the Eureka Waterfront area to eliminate petroleum, metals, and organic chemical pollution and threats	5	X	X	X	X	X	4.1A	
Continue review of land use practices within the Humboldt Bay Watershed to ameliorate impacts from runoff sources.	5	?	?	?	?	?	1A, 1D, 2E, 2I, 3.4B	
Seek funding to improve	1	?			?	?	1G, 2L	

interagency coordination to assist with identification of problem areas, conduct outreach programs and coordinate enforcement activities for erosion control			?	?				Partial
Encourage local agencies to adopt and enforce local ordinances for erosion control	1	?	?	?	?	?	1A	
Conduct community education and outreach programs.	1	?	?	?	?	?	1G	Yes
Perform watershed assessments, including bacterial sampling	1	?	?	?	?	?	N/A	
Follow up on MTBE detections at Ruth Lake, Mad River watershed	1	?	?	?	?	?	N/A	
Require regular monitoring of water quality at nonpoint source facility discharge points.	1	?	?	?	?	?	N/A	
Require water quality monitoring of THPs by PALCO	4						2	
Seek additional funding for regulatory oversight of investigations and cleanups along the waterfront.	1	X	X	X	X	X	N/A	
Require regular monitoring of nearby surface water bodies in association with the application of herbicides	1	?	?	?	?	?	1D, 2I	
Seek increased funding to conduct inspections and water quality monitoring	1	X	X	X	X	X	N/A	
Pursue additional Regional Water Board funding (PYs) to identify ground water monitoring needs.	2	X	X	X	X	X	N/A	
Pursue additional Regional Water Board funding (PYs) to conduct nonpoint source inspections.	2	X	X	X	X	X	1A-G, 2L, 3.6, 4.3, 5.4, 6D	No
Pursue additional Regional Water Board funding (PYs) to store, analyze, and assess existing information and to develop GIS support.	2	X	X	X	X	X	N/A	
Increase coordination and cooperation with the RCDs and the agricultural community to advance to Title 27 requirements	2, 5	?	?	?	?	?	1B, 1E,1G	
Prevent access and discharge to waste pits and ponds	2	X	X	X	X	X	N/A	
Continue to coordinate with the county to review septic system situations to avoid ground water contamination.	2	X	X	X	X	X	3.4B	
A monitoring workshop should be held in the Humboldt Bay area to coordinate among private, public groups, HSU, Shellfish TAC and other	3	?	?	?	?	?	1B,1G, 2L, 3.6A, 4.1A	

Coordinate assessment and monitoring activities with local agencies and groups	3	?	?	?	?	?	1G, 2L, 3.6A	
Seek funding for a local Database/GIS System and coordinator	3	X	X	X	X	X	N/A	
Identify opportunities for redirection of staff resources and funding into additional assessment and monitoring functions.	3	X	X	X	X	X	N/A	
Support and promote educational opportunities for permitting, erosion control, wetlands values, and aquatic habitat restoration, develop a matrix of agencies and responsibilities to distribute at local permit centers. Tax	1, 2, 3, 4	?			?	?	1G, 2L, 3.6A, 5.4A, 5.3A	
Utilize Water Quality Attainment Strategies ("TMDL") for reduction of	3	?			?	?	1A, 2	
Look at restoration projects from the standpoints of utility and effectiveness.	3	?	?	?	?	?	N/A	
Obtain dredging records to assist in the assessment of upslope activities and larger problems downstream in the waterways	3	?	?	?	?	?	5.1A & B	
Seek additional funding for staff and laboratory services to inspect and monitor water quality	3	X	X	X	X	X	N/A	
Address Clean Water Act Section 303(d) for the Mad River, Redwood Creek,	4	X			X	X	1G, 2L, 3.6A, 5.4A	
Improve habitat conditions for anadromous fishes by assisting and coordinating with CDFG and local agencies and groups in fishery assessment and by promoting grant funding for stream rehabilitation and monitoring.	4	?	?	?	?	?	2L, 5.4A	
Promote enhancement of riparian areas.	4	X	X	X	X	X	5.4A, 2L, 1G, 6D	
Support use of the State Mussel Watch Program within the Bay.	5	?			?	?	4.1A	
In cooperation with the Department of Health Services, Shellfish Program, explore pathogen issues with University of California at Davis	5	?	?	?	?	?	N/A	

* GOALS from the WMI Chapter section for the Humboldt Bay WMA

- **GOAL 1: Protect surface water uses MUN, REC-1, REC-2, NAV, WILD, EST, MAR, MIGR, SPWN, SHELL**
- **GOAL 2: Protect ground water uses MUN, IND, AGR, REC-1, REC-2**
- **GOAL 3: Further and continued assessment and monitoring**
- **GOAL 4: Protect/enhance cold water fisheries**
- **GOAL 5*:* Protection of the commercial and recreational shellfish uses**

Table 2 – Short Term Objectives: Eel River WMA

Objective	GOAL Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Develop strategies to implement and enforce best management practices for	1	X**			X	X	1D, 1G, 2I, 2L, 3.6A, 3.5B, 3.5D, 3.5F,	
Work with the timber industry to address timber harvest impacts and issues (. Work with USFS regarding timber harvest related activities, including road building and road abandonment, in the upper Eel Basin.	1	X	X	X	X	X	2A,B,C,D,E,I	
Investigate herbicide impacts to surface and ground water. Participate in Vegetation Management Advisory Committee.	1	?**	?	?	?	?	1D, 2I, 3.5D, 3.5F	
Promote grants for nonpoint source studies and implementation	1	X	X	X	X	X	5.4A	Yes
Increase coordination with RCD and agricultural community to address rangeland issues and confined animal problems.	1, 2	X	X	X	X	X	1B, 1E, 1G	Partial
Continue on-going activities associated with known ground water contamination	3	X	X	X	X	X	N/A	
Prevent access to waste pits and ponds.	3	X	X	X	X	X	N/A	
Coordinate with the counties on septic system situations and reporting on septage disposal.	3	X	X	X	X	X	3.4B	
Promote erosion control educational materials and	1	?			?	?	1G, 2L, 3.6A, 5.4A,6A	Yes
Compare new air photos with historical air photos and note changes in the morphology of channels.	1	?	?	?	?	?	1G, 2L, 3.6A, 3.5B, 3.5E	
Develop a road map of groups/agencies responsible to assist an individual landowner in a given waterbody or type of problem or situation.	1	?	?	?	?	?	1G, 2L, 3.6A, 5.4A,6A	
Inspect construction sites for erosion controls, encourage local agencies to adopt and	1	?	?	?	?	?	3.2A, 3.2B, 5.4A	

enforce local ordinances for erosion control. Increase storm water program resources								
Fund PYs for coordinating our functions with other agencies on a watershed basis.	1	?	?	?	?	?	1G, 2L, 3.6A, 3.5B, 3.5E	Partial
Improve water quality assessment and monitoring activities	1	?	?	?	?	?	N/A	
Tax incentives for erosion control and aquatic restoration activities should be supported and pursued.	1	?	?	?	?	?	N/A	
Promote enhancement of riparian areas through grant funding, public education and outreach, and coordination and assistance to other agencies and groups.	1	?	?	?	?	?	1G, 2L, 5.4A	Yes
Improve habitat conditions for anadromous fishes by assisting and coordinating with CDF&G and local agencies and groups.	1	?	?	?	?	?	5.1A, 5.4A	Yes
Coordinate water rights/dams issues with SWRCB and other agencies.	1	?	?	?	?	?	N/A	
Be part of the process and decision criteria regarding amounts, locations, and seasonality of gravel extractions	1	?	?	?	?	?	5.1A, 5.1B	
Encourage the local planning agencies to endorse the concept of a riparian corridor reserve and develop a model erosion control ordinance for all grading and building projects less than 5 acres in size. Coordinate with local agencies, CalTrans, and the Railroad Authority to develop and implement best management practices for erosion control.	1	?	?	?	?	?	1A, 3.1, 3.5A	
Develop and implement a focused sampling program for temperature, sediment loading, geomorphology changes and water quality in upper mainstem Eel River.	1, 2	?	?	?	?	?	N/A	
Support CDFG efforts to identify the extent of squawfish predation on	1	X	X	X	X	X	N/A	

salmon and steelhead populations and evaluate management strategies to eliminate squawfish predation and/or population within the river and Lake Pillsbury.								
Increase staff priority to develop general permits for agricultural activities	2	?	?	?	?	?	N/A	
Investigate the feasibility and impacts to beneficial uses if Eel River estuary and lower mainstem are dredged to remove well documented sediment clogging in watershed.	2	?	?	?	?	?	5.1A	
Streamline 401 water quality certification program for small dischargers and encourage better use of existing BMP's for erosion.	2	X	X	X	X	X	N/A	
Establish and fund an Eel River watershed coordinator position to develop outreach programs.	2	?	?	?	?	?	1G, 2L, 5.4A	
Prepare, develop, and implement a program to educate the public, local, city, and state Agencies, along with private industry, on discharges of toxic chemicals.	3	?	?	?	?	?	1G, 2L, 3.6A	

* GOALS from the WMI Chapter section for the Eel River WMA

- **GOAL 1: Protect and enhance the salmonid resources (COLD*)***
- **GOAL 2: Protect other surface water uses (MUN, AGR, REC 1, REC-2)**
- **GOAL 3: Protect ground water uses (MUN, IND. AGR, REC-1, REC-2)**
- **GOAL 4. Protect warmwater fishery resources**

Table 2 – Short Term Objectives: Trinity WMA

Objective	GOAL Ref*	State Fiscal Year 01-02	02-03	03-04	04-05	05-06	Management Measures	Funded in FY 02-03
Increase level of CDF Review Team activities including inspections	1,3	X	X	X	X	X	2A, 2B, 2E, 2K	Yes
Increase level of review of USFS Timber Sales	1,3	X	X	X	X	X	2A, 2B, 2E, 2K	Yes
Increase implementation of USFS/SWRCB MAA for non-timber NPS issues for Shasta/Trinity National Forest	1,3						2A, 2B, 2E, 2K	Partial
Inventory and assess abandoned and active mines and remediate as necessary	2, 3						N/A	No
Investigate and assess old burn dumps for hazardous materials release	2,3						N/A	No
Review restoration and habitat enhancement projects for implementation of Best Management Practices (BMP) and NPS Management Measures (MM)	1,2,3						1C, 1D, 1E,5.1, 5.3, 6B	No
Assess roads associated with Buckhorn Dam for erosion control and upslope slumping	1, 3						2D, 5.2	No
Investigate and assess onsite disposal systems for compliance	2						3.4	?
Monitor projects to determine the effectiveness of BMPs and MMs	1, 3						Various	No
Continue outreach, education, and coordination with locals, and the TRTF through the TMDL process	1, 2, 3						1G, 2L, 3.6, 5.4, 6D	?
Continue to implement the 404/401 certification process	1, 2, 3						1, 2, 5, 6	?
Increase level of investigation, monitoring and enforcement of petroleum and wood treatment chemical contamination of ground water	2						3.3	No
Continue active involvement in federal and state grant programs, promote local activities and watershed groups	1, 3	X	X	X	X	X	1, 2, 3, 5, 6	Partial
Adopt an implementation plan for sediment control	1, 3						1A, 2, 3.5F, 5, 6	

* GOALS from the WMI Chapter section for the Trinity WMA

- **GOAL 1: Protect and enhance salmonid resources (COLD,MIGR, SPWN, RARE)**
- **GOAL 2: Protect and enhance ground water resources and attendant beneficial uses**
- **GOAL 3: Protect all other surface water uses**

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Regionwide

Target Audience	Education/Outreach/ Assistance GOALs	Product(s)	Staff or Contract	Management Measure Category
Water quality monitors	• Monitoring Study Group • Measure effectiveness of BMPs	• Design of monitoring programs	Staff	2
Public and timber industry	• Cumulative Watershed Effects Workshop • Educate about the current process	• Evaluate cumulative watershed effects	Staff	2
Staff, agencies, timber industry	• Erosion Control Seminar • Convey newest/best techniques of erosion control	• Erosion control on roads and large land clearings (such as vineyards)	Staff	2
Forest herbicide users	• Weed Seminar • Review/update on regulations	• Protect water quality from herbicides	Staff	2
Agencies and watershed groups	• Completion of Watershed Assessment Efforts • Assessment goals for individual WMAs	• Completed watershed assessments	Staff	1,2,3, 5,6
Elementary school children	• Understanding the importance of clean water	• Active citizens	Staff	1G, 2L, 3.6, 4.3, 5.4, 6D

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Russian/Bodega Watershed Management Area

Target Audience	Education/Outreach/ Assistance GOALs	Product(s)	Staff or Contract	Management Measure Category
Growers, landowners	• Reduce discharges from hillside vineyards and other agricultural sites	• Reduced erosion and sedimentation • Reduced nutrient discharges	Staff	1A, 1E, 1G
Local dairy industry	• Improve management practices	• Reduced erosion and sedimentation • Reduced nutrient discharges	Staff	1B, 1C
Rural residential road owners	• Road restoration/retirement and repairs	• Reduced erosion and sedimentation • Improve anadromous fish habitat	Staff	Various
Agricultural producers	• Promote habitat/riparian restoration in existing agricultural areas • Fishery assessment • Promote grant funding for stream rehabilitation	• Improve habitat conditions for anadromous fishes	Staff	1A, 1E, 5.1, 5.2, 5.4A

Landowners	• Promote awareness of the effects of increased erosion on channel morphology	• Enhanced salmonid habitat	Staff	5.1 - 5.4, 3.1A
Other agencies	• Improve agency coordination regarding Bodega Harbor runoff issues and marina and dry dock operations • Encourage the pursuit of a 205(j) grant.	• Improve water quality in Bodega Bay	Staff	3.1-3.3, 3.6, 4.1-4.3

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Klamath Watershed Management Area

Target Audience	Education/Outreach/ Assistance GOALS	Product(s)	Staff or Contract	Management Measure Category
LOST RIVER Subwatershed				
Watershed groups, non-profits	CWA 104, 205(j), 319(h) and Fish and Game 271 grants	Grant projects for control of tailwater	Staff	1F, 1C, 1G, 5.4A, 6D
UPPER KLAMATH Subwatershed				
Watershed groups, non-profits	CWA 104, 205(j), 319(h) and Fish and Game 271 grants	Grant projects	Staff	5.4A
MIDDLE KLAMATH Subwatershed				
Local community	Promote assessment and restoration activities	Sediment control in the upper Scott River watershed	Staff	1A, 1G, 1E, 2L
Watershed groups, nonprofits	CWA 104, 205(j), 319(h) and Fish and Game 271 grants	Grant projects for nonpoint source control of agricultural, construction, and timberland in the Shasta, Scott, and Salmon rivers	Staff	1A, 1G, 1E, 2L, 5.4A
Watershed groups, nonprofits	Attend watershed group meetings	Development of TMDLs in designated sub-basins	Staff	2L
LOWER KLAMATH Subwatershed				
Timber companies	Foster long-term water quality monitoring	Monitoring data and water quality trends	Staff	2L

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Garcia River Watershed

Target Audience	Education/Outreach/ Assistance GOALS	Product(s)	Staff or Contract	Management Measure Category
Local landowners	• Increase awareness of nonpoint source pollution	• Enhance anadromous fish resources	Staff	2I, 5.4A
Watershed groups, nonprofits, agencies	• CWA 104, 205(j), 319(h) and fish and Game 271 grants	• Grant projects	Staff	5.4A
Ranchers	• Rangeland Water Quality Management Plans	• Reduced erosion, sedimentation and nutrient delivery to surface waters	Staff	1E
Users of agricultural and residential storage tanks	• Education through the Mendocino County Health Department	• Prevent pollution from storage tanks	Staff	N/A

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Gualala River Watershed

Target Audience	Education/Outreach/ Assistance GOALS	Product(s)	Staff or Contract	Management Measure Category
Landowners, watershed groups	• Recognition of land use impacts on the aquatic environment from nonpoint sources	• Improved anadromous fish habitat • Reduction in erosion and sedimentation	Staff	2L, 3.6A
Watershed groups, nonprofits, agencies	• CWA 104, 205(j), 319(h) and Fish and Game 271 grants	• Grant projects • Improved anadromous fish habitat	Staff	5.4A
Gualala River Watershed Council	• Attend meetings • Consult with other entities and agencies	• Stakeholder involvement	Staff	1G, 2L, 3.6A, 5.4A

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Humboldt Watershed Management Area

Target Audience	Education/Outreach/ Assistance GOALS	Product(s)	Staff or Contract	Management Measure Category
Agencies, Watershed groups, public	• Provide information • Receive input from agencies and the public	• Interagency coordination • Stakeholder involvement	Staff	1G, 2L, 3.6A
Landowners: agricultural community	• CWA 104, 205(j), 319(h) and Fish and Game 271 grants	• Grant projects	Staff	1G, 2L, 3.6A
Local watershed groups	• Coordination of volunteer monitoring	• Monitoring data	Staff	1G, 2L, 3.6A
Agricultural and timber industries and urban dwellers	• Better understanding of cold water fisheries needs	• Improved anadromous fish habitat	Staff	1G, 2L, 3.6A
The public and private industries	• Provide information on good management practices	• Protection of surface water beneficial uses • Erosion control	Staff	1G, 2L
Cattle producers	• Promote good management practices • Implement the California Rangeland Water Quality Management Plan	• Reduce erosion • Reduce nonpoint source waste discharge	Staff	1G, 1E
The public, local, city, state agencies, private industry	• Educational program	• Prevention of toxic discharges to ground water	Staff	1G

Confined animal facilities, rangeland owners, RCDs	• Foster cooperation and coordination • Educational meetings	• Avoid ground water contamination	Staff	1B, 1E, 1G
The public and agencies	• Promote use of wastes at agronomic rates • Promote the Rangeland Water Quality Management Plan • Increase interagency coordination	• Proper disposal of nonpoint source wastes	Staff	1G, 1C, 1E, 3.6A
Private, public groups, HSU, and other agencies	• Monitoring workshop	• Data exchange • Standardization of monitoring protocols • Standardization of volunteer monitoring • Coordinating data collection and analysis	Staff	1B, 1G, 2L, 3.6A, 4.1A
Watershed groups	• Watershed assessment • Obtain monitoring data	• Watershed Plans • Trends in water quality and habitat trends	Staff	1G, 2L, 3.6A
The public, small and rural landowners	• Placing educational handouts at local permit offices • Develop a road map of groups/agencies responsible to assist an individual landowner	• Educational materials and opportunities for permitting, erosion control, wetlands values, and aquatic habitat restoration • Enhanced cold water fisheries	Staff	1A, 1G, 2L, 5.4A, 5.3A

	• Erosion control for small and rural landowners • Develop a matrix of agencies and responsibilities to distribute at local permit centers	• Increased assessment and monitoring		
Landowners, construction, siliviculture, agriculture industries	• Reduce nutrient, sediment, and chemical discharges from nonpoint sources.	• Enforce best management practices for nonpoint source regulation	Staff	1G, 2L, 3.6A, 5.4A
Landowners	• Assessment of sources, assessment of impairments, development of quantifiable targets, consideration of feasible solutions to reduce sources, and coordinated monitoring	• Establish sediment reduction strategies	Staff	1G, 2L, 3.6A, 5.4A
Watershed groups, other agencies	• To improve riparian functions for shading, buffering land use impacts, bank stabilization, and habitat	• Enhancement of riparian areas	Staff	5.4A, 2L, 1G, 6D

TABLE 2A: Education, Outreach, and Technical Assistance

Watershed: Eel River Watershed Management Area

Target Audience	Education/Outreach/ Assistance GOALS	Product(s)	Staff or Contract	Management Measure Category
Local Landowners in Eel and Van Duzen Rivers	• TMDL requirements • Provide sediment reduction strategies (BMPs)	• Guidance on BMPs	Staff	1G, 2L, 3.6A
Local watershed groups, agencies, RCDs etc	• CWA 104, 319(h) & 205(j) and Fish & Game 271 grants	• Grant projects	Staff	5.4A
Small and Rural landowners	• Promote erosion controls	• Educational handouts	Staff	1G, 2l, 3.6A,
Public agencies, watershed groups, RCDs	• Enhancement of riparian areas	• Grant projects • Educational materials	Staff	1G, 2L, 3.6A 5.4A
Watershed Groups	• Seal waste pit and ponds • Education on BMPs	• Host watershed group meetings • Implementation of Rangeland Management Planning process	Staff	1C, 1E, 1F, 1G
Public, local, city, State agencies, and private industry	• Reduce discharges of toxic chemicals	• Educational program	Staff	1G 2L

TABLE 3: WAIVERS OF WASTE DISCHARGE (General Categories)

Waiver No./Name/Description	Management Measures	Review Schedule
Air conditioner, noncontact cooling and elevated temperature waters	3.3	**All waivers will be reviewed by January 1, 2003**
Drilling muds (not geothermal drilling muds)	N/A	
Clean oils	1D, 3.1, 3.2	
Minor dredge operations	5.1	
Inert solid wastes (nonwater soluable, non-decomposable, non-hazardous i.e. earth, rock, concrete)	N/A	
Test pumpings of fresh water wells	N/A	
Storm water runoff	3.1, 3.2, 3.3	
Erosion from minor construction projects	3.2	
Pesticide rinse waters from applicators	1D	
Confined animal wastes	1B	
Minor stream channel alterations and suction dredging	5.1	
Small, short-term sand, gravel, and quarry operations	5.1	
Small mining operations	N/A	
Swimming pool discharges	3.3	
Food processing wastes spread on land	1C, 1F	
Agricultural commodity wastes	1C, 1F	
Industrial wastes used for soil amendments	1C, 1F	
Timber harvesting	2	
Minor hydro projects	5	
Irrigation return water	1F	
Projects where appilcation for Water Quality Certification has been requested	3.2, 5	
Individual sewage disposal systems and small community, commercial, institutional, and industrial		

operations which utilize on-site wastewater treatment and disposal for domestic wastes	3.4	
Flow-though seawater systems and aquacultural operations	4.2B	
Dewatering at construction projects	3.2	
Use of reclaimed wastewater for soil compaction or dust control, and other construction purposes	3.2	
Discharge from flushing of domestic water lines and tanks	3.3	
Lake or reservoir drainage projects	N/A	
Discharge from hydrostatic test lines	3.2, 3.3	
Low volume, noncontaminated wastewaters generated by the installation and purging of monitoring wells during ground water contamination investigations	3.1, 3.2, 3.3	
Discharges associated with the incineration of soils contaminated with petroleum hydrocarbons	3.3	

TABLE 4: North Coast Region Key Partners

Existing or Potential Partner Agency:	MOU/MAA Title Content of potential/revised agreements:	Target date for review (existing) or adoption (potential):	Management Measure Categories:
Sonoma County and the South Park County Sanitation District (existing)	Plan of Action for HVOC Investigation and Mitigation in the Roseland Area	Monthly reports, Final Report 2/15/02	HVOC ground water plume, (maybe 3.3A)
Humboldt Bay Shellfish Technical Advisory Committee (includes: shellfish industries, local wastewater treatment plants, regulatory agencies, agricultural & environmental interests)	Regional Water Board Resolution No. 94-78 established the TAC per the Shellfish Protection Act of 1993. The purpose of the TAC is to advise and assist the Regional Water Board in developing an investigation and recommendation strategy to control pollution from commercial shellfish growing waters in Humboldt Bay and to pursue appropriate funding.	A report was submitted in May 1999 with recommendations. A bacteria study of runoff to the Bay is currently underway and funded by the State Water Resources Control Board.	4.2B (maybe 1B, 1C)

TABLE 5: **PROPOSED SFY 2002/03 NONPOINT SOURCE RESOURCE ALLOCATION (Includes activities for which funding has not been identified; Does not include TMDL activities not funded by 319(h))**

Task	Product	Management Measure(s)	Staff or Contract	Cost
Hillside vineyard education, outreach, inspections and enforcement	Fewer erosion sites	1A, E, G	Staff	$220,000
Dairy outreach	Control of dairy waste	1B,C	Staff	$110,000
TMDL Implementation Tasks	Fewer erosion sites	1,2,5	Staff	$110,000
Perform nonpoint source inspections and follow-up	Increased awareness Enforcement of problems	1A-G, 2L, 3.6, 4.3, 5.4, 6D	Staff	$330,000
Timber harvest plan review and inspection	Fewer erosion sites Improve riparian zone	2A-F, K	Staff	$3.1 M
Maintain individual waste disposal systems program	Public health protection	3.4	Staff	$33,000
Promote riparian zone restoration and channel morph considerations	Improved flood plain function Less stream bank erosion Less aggradation/degradation	1A, E 5.1, 5.2, 5.4A	Staff	$55,000
NPS grant outreach and management	More NPS controls in place	5.4A	Staff	$165,000
Monitor effectiveness of TMDL and management practices to reduce erosion and sedimentation	More effective NPS program Improved ability to judge control mechanisms	1A, 2	Staff	$385,000
Increase RCD coordination to address rangeland and confined animal runoff problems	Less erosion Improved riparian zones Lower water temperatures Improved animal waste management	1B, 1E, 1G	Staff	$110,000

STAFF COST – 1 PY = $110,000
Contract cost is for the entire contract even if it is a multi-year contract.

TABLE 6: NPS RESOURCE NEEDS 2002/03 THROUGH 2004/05

Task	Product	Management Measure(s)	Geographic Area	State Fiscal Year	Est. Cost PYs/Dollars
Implement USFS/SWRCB MAA for non-timber NPS activities	• Fewer erosion sites and sources of sedimentation • Road retirement • Improved riparian habitat • Fire management • Wetlands protection	, 2C, 2D,2G,2H,2I, 2J, 5.1, 5.3,6A, 6B	Mendocino, Modoc, Six Rivers, Klamath, and Shasta/Trinity National Forests	2002 - 20053	2.5 PYs
Rural Road Issues	Less stream sedimentation and fish passage blockages	2C, 2D,2G,2H,2I, 2J, 5.1, 5.3,6A, 6B	Regionwide	2002-2005	2.0 PYs
Ranch Plan Reviews	Less stream sedimentation and fish passage blockages	2C, 2D,2G,2H,2I, 2J, 5.1, 5.3,6A, 6B	Regionwide	2002-2005	0.5 PYs

STAFF COST = 1PY = $110,000